

# HOYA NEW



**Oh There it is !**  
**Hoya sp.** American Samoa  
Palmate attenuate leaf

A pdf publication devoted to the Genus  
Hoya ISSN 2329-7336

## Volume 2 Issue 2

May 2014

Editor:  
Dale Kloppenburg

## Contents

When a species is collected from the wild, I feel it is wise to identify it, propagate it and name it. In this way it will eventually get it into commercial channels, be distributed to all those interested in this genus and thus be preserved. If in the future the species is lost through natural causes or forest destruction it will still be here on earth in your collection.

**Corrections:** Vol. 1-4 Places where hoyas grow, Taken by Eva-karen Wieburg at highest poing in Genting Highlands. Malaysia.

**Contents page:** *Hoya myrmecopa* subsp. *kapatalanensis* (not sunsp. *kanaloensis*)

Vol. 2-2 page 31 In description; *Hoya ralphdavisiana* (not *ralphdavissoniana*).

The following new species are presented in PDF format with ISSN number.

1. ***Hoya blashernaezii*** Kloppenburg **subsp. *valmayoriana***  
Kloppenburg, Guevarra & Carandang 2013.

2. ***Hoya mindorensis*** Schlechter 1906 **subsp. *erythrostemma*** Kerr  
1939.

3. **Eriostemma seidenschwarzii** Kloppenburg.
4. **Hoya ranauensis** T. Green & D. Kloppenburg.
5. **Eriostemma davaoensis** Kloppenburg.
6. **Eriostemma suluensis** Kloppenburg.

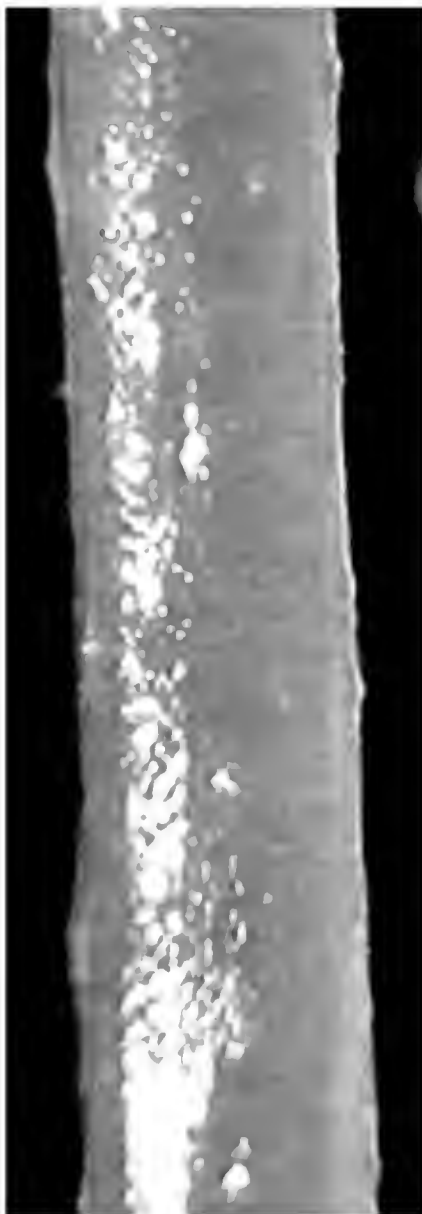
**NOTE:** please see the Website publication of these species at “[www.rare-hoyas.com](http://www.rare-hoyas.com)”. Go to end and click on “publication” to access new species publications.

**# 1. *Hoya blashernaezii* Kloppenburg subsp. *valmayoriana***  
Kloppenburg, Guevarra & Carandang  
ISSN 2329-7336

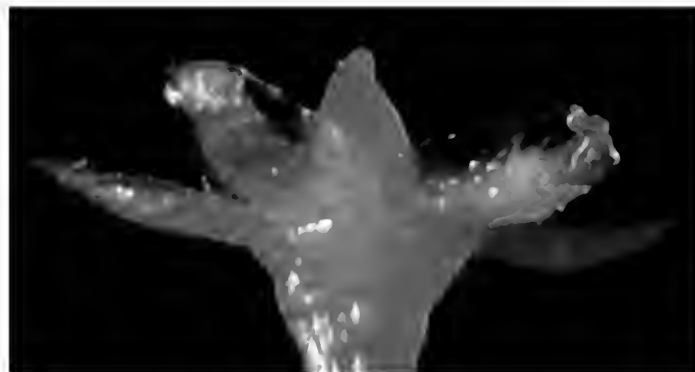
***Hoya blashernaezii* Kloppenburg subsp. *valmayoriana*** Kloppenburg, Guevarra & Carandang 2013, subsp. nova. Typus 71809 (CAHUP), Similis *Hoya blashernaezii* Kloppenburg 1999, sed, discolor et differt conformatio, corolla diamenteo complanatus brevior 1.26 cm contrastre 1.60 cm; coronae lobus brevior 0.30 cm contrastre 0.32 cm et pollinium longior 0.48 mm contrastre 0.44 mm, differt.

The new subspecies is similar to *Hoya blashernaezii* but different. The corolla is of a different color also shape (conformation of the corolla) is reflexed not campanulate and the corolla diameter flattened is smaller 1.26 cm versus 1.60 cm and the lobes of the corona are shorter 0.30 cm versus 0.32 cm also the pollinia are longer 0.48 mm versus 0.44 mm, among other differences.

Subsp. details follow:

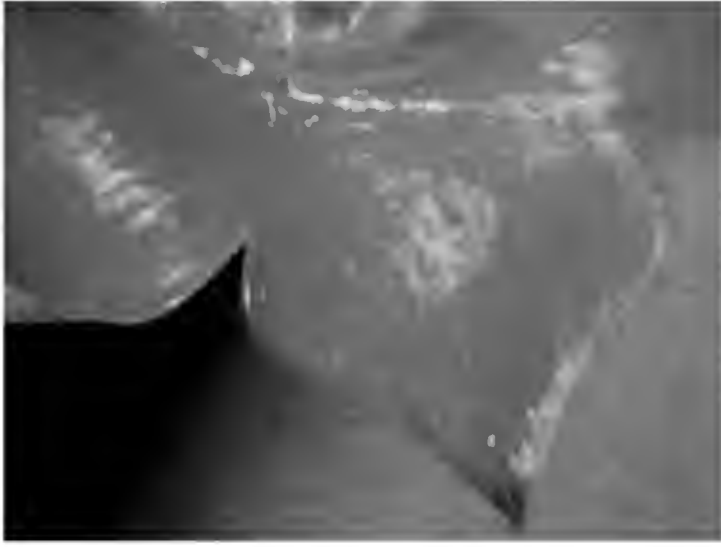


**Pedicel:** section enlarged ca. 55x. 2.6 cm long, strict, terete, glabrous, 0.7 cm wide.

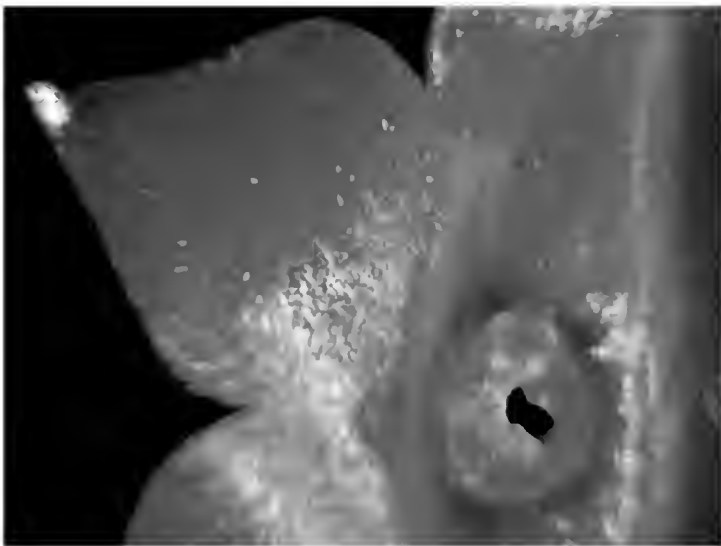


**Calyx:** side view enlarged ca. 16x. Sepals are glabrous inside and out, sub-linear, overlap slightly at base, apices are obtuse, 0.22 cm long x 0.10 cm wide at base, ligules present.

**Ovaries:** dome shaped, glabrous, 0.16 cm tall and base pair 0.11 cm wide.

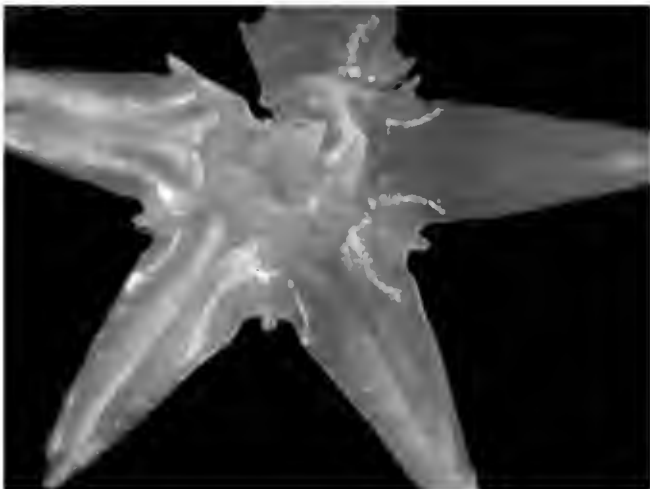


**Corolla:** ventral surface enlarged ca. 12.5 x, surface is glabrous, central collar thickened protrudes abaxilly (away from flower apex), lobes are broad apex sharp acute. Color is yellow-orange.

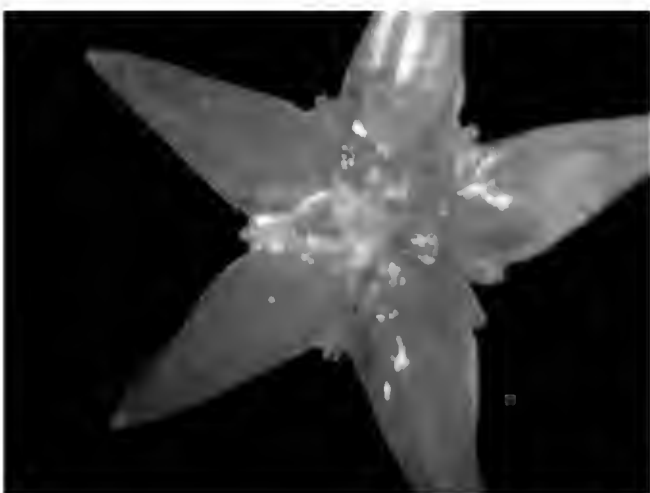


Corolla dorsal surface enlarged as above, surface is puberulent except apex of lobes and less so around the thickened collar area.

Sinus – sinus	0.40 cm
Sinus – center	0.33 cm
Sinus – apex	0.45 cm
Apex – center	0.63 cm
Widest	0.45 cm.

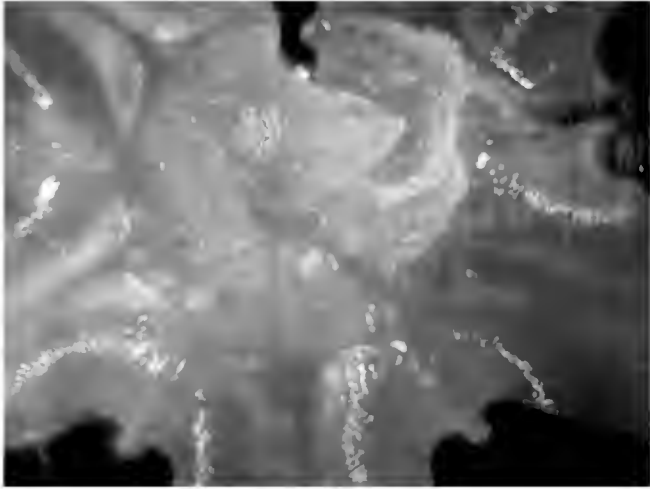


**Corona:** ventral surface enlarged ca. 12x, surfaces are glabrous, channeled lobed are diagonally sulcate. Anther wing apices are extended beyond the sinuses, narrow ends blunt. Color is pink.



Corona dorsal surface enlarged a little less than above. Surfaces are glabrous, inner lobe is blunt dentate and does not reach the center, dorsal is slightly concave with low central rise, outer apex exceeds the corolla sinus and is sharp acute.

Apex – apex	0.30 cm
Apex – center	0.40 cm
Widest	0.10 cm near inner lobe.
Ret. – ret.	0.11 cm
Ret. – center	0.09 cm
Aw. – aw.	0.19 cm
Aw. – center	0.12 cm



Corona ventral column area greatly enlarged to show the granulate side surfaces to the inner ends of the coronal lobes.



Coronal scale ventral surface, lobe is evenly channeled to near the central column surface is diagonally sulcate, anther wings are prominent.



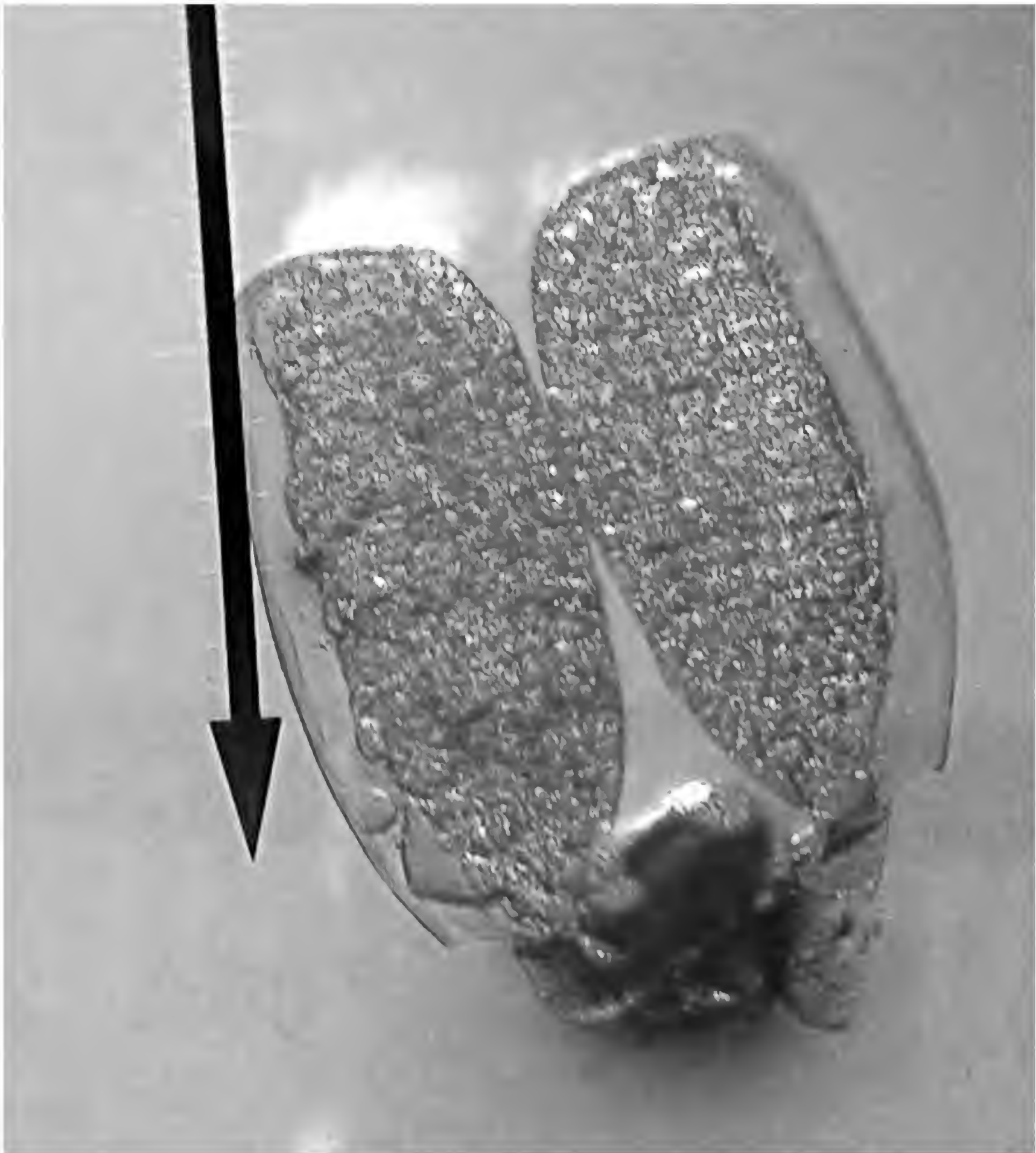
Corona scale side view, outer lobe very slightly raised, inner lobe short dentate with anthers exceeding; lobe is medium in depth.



Coronal scale dorsal view, lobe is relatively narrow, widest just outward from inner dentate lobe here covered by the anthers, outer apex distinctly narrowly acute. All three parts above enlarged ca. 18x.

**Leaves:** opposite, petiolate, narrowly elliptic, base obtuse, apex long tapering acute-acuminate, surfaces glabrous, plinerved, anastomosing. Blades 7-14 cm long x 3.4 cm widest. Petioles 0.87 cm long.





Pollinium enlarged ca. 200x.

**Pollinium**

length	0.48 mm
widest	0.23 mm

**Retinaculum**

length	0.10 mm
shoulder	0.15 mm
waist	0.07 mm
hip	0.08 mm
ext.	0.04 mm

**Translator**

length	0.10 mm
depth	0.05 mm

**Caudicle**

bulb diam.	0.04 mm
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**Translator type:** d/o



71809

FLORA OF THE PHILIPPINES  
College of Agriculture Herbarium  
University of the Philippines (U.P.)  
College, Los Baños, Laguna

ASCLEPIADACEAE  
*Platanus*

A medium-sized tree, locally very common  
under. Bark orange, glabrous, reddish-brown.  
Inner bark, thickened, slightly sweet.



IML 831 Philippines

Narrowly elongated leaves like *H. siariae*; 5  
nerved; leaf apex bent downward

Leaf sample	Length (cm)	Width (cm)	Thickness (cm)
1	15.0	3.2	0.155
2	16.5	3.2	0.175
3	11.0	2.8	0.145
4	11.3	3.4	0.155
5	12.6	3.2	0.125
6	13.3	3.3	0.175
7	14.2	3.2	0.150
8	10.2	2.9	0.160
9	7.5	2.4	0.175
10	8.1	2.5	0.175
Mean	11.97	3.01	0.159
Range	7.5-16.5	2.4 - 3.4	0.125-0.175



Pictures this page above by M.I L.D Guevarra:

## References:

1. **Hoya benitotanii** Kloppenburg 2012 in Gardens' Bulletin Singapore 61 (2) 330-333.
2. **Hoya camphorifolia** Warburg 1904 in Perkind Frag. Phiipp. ! (1904) 129.
3. **Hoya blashernaezii** Kloppenburg 1999 in Fraterna 12/1,9-13

## Contributors:

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(Bebs) Maria Lusia D. Gueverra, her title is University Researcher, Fruit and Ornamental Crops Section, Crop Science Cluster, Institute of Plant Breeding, College of Agriculture, University of the Philippines in Los Banos, Laguna, Philippines.

Dale Kloppenburg, retired: Graduate UC Berkeley, Plant Genetics, Lt. USNR, Plant Breeder, Research Agronomist, now taxonomy of Genus Hoya.

## # 2. **Hoya mindorensis** Schlechter 1906 **subsp. erythrostemma** Kerr 1939 ISSN 2329-7336

**Hoya mindorensis** Schlechter 1906 **subsp. erythrostemma** Kerr 1939 subsp. nova. Typus: **Tasan, Kloss, 6909**), Similis sp. sed pedicilis brevior 1.2-1.4 cm contrastre 1.5 cm et sepala non ciliatus ovatis; corolla diametro complanatus grandior 1.00 cm contrastre 0.90 cm intus dimidio inferiore disperses hirsutus et coronae lobus longior 0.30 cm contrastre 0.23 cm, differt.

Here again we have a species that is highly variable, many color variations that also have many differences in the flower parts. This subspecies differs from Dr. Schlechter's type as the pedicels here are slightly shorter 1.2-1.4 cm vs. 1.5 cm, also here the sepals lobes are entire and not ciliate; the corolla flattened is 1.00 cm in diameter vs. 0.90 cm among other differences.

**Hoya mindorensis** subsp. **erythrostemma** type description:

Frutex volubilis; rami subquadrati, sat gracilis, dispersim radicanes. Folia elliptica, basi acuta, apice leviter acuminata acuta, usque 10 cm longa, 4 cm lata, siccitate papyracea, glabra, costa cum nervis lateralibus et transversis utranque pagina praecipue supra prominulis, nervis lateralibus 5-6 paribus e costa angulo 60° abeuntibus et nervo marginali a margine 3-6 mm distante conjunctis; petiolus sat robustus, glaber, 3-6 mm longus, supra angustissime canaliculatus. Inflorescentia lateralis, umbellata; pedunculus

glabra circiter 14 mm longus; pedicelli graciles, glabra, 12-14 mm longi. Flores albi, corolla sanguinea(ex Kloss), explanati circiter 10mm. diametro. Calyx 5-partitus; lobi ovati, acuti, glabri, margine minute erosi, 1.5 mm longi. Corolla 5-lobata, subrotata sub anthesin reflexa, supra praecipue ad marginem et lobos sat longe villosa; tubus explanatus, circiter 2 mm longus; lobi late ovati, breviter acuminati, circiter 3 mm longi, 5 mm lati. Coronae segmenta cartilaginea, nitentia, lateraliter valde compressa, 3 mm longa, basi 1.75 mm alta, apice exteriori acuta, apice interiori antheris paulo breviora. Stigmatis caput umbelliforme, apice umbonatum. Folliculi desunt.

**Tasan, Kloss, 6909.** Parkinson 1680, from Thebyu Chaung, South Tenasserim, also belongs here. It differs from the type in its longer petioles, which are up to 2 cm in length.

### # 3. **Eriostemma seidenschwarzii** Kloppenburg

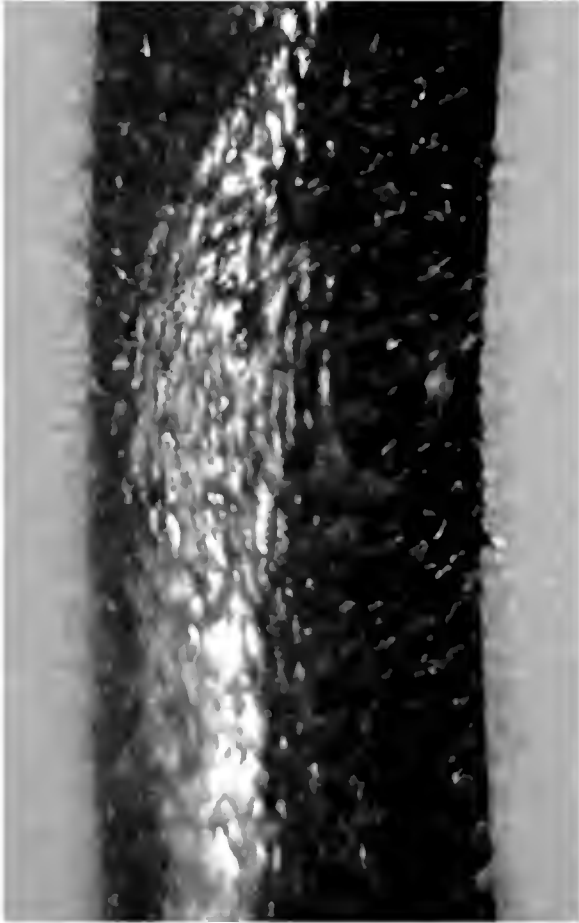
ISSN 2329-7336

**Eriostemma seidenschwarzii** Kloppenburg sp. nova, Holotype # 20013 (CEB) hic designatus, similes *Eriostemma ciliata* (Elmer ex Burton) Kloppenburg & Gilding sed planta dense ciliatus non parce ciliatus. Sepala pars desse ciliatus contrastre minute ciliata et corollae subviridis contrastre fere ater, coronae collum usa longus 0.45 cm contrastre usa revis, differt.

This new species is much different from *Eriostemma ciliata* Kloppenburg & Gilding, the flower color here is pale green not nearly black and it also does not have grooved leaf petioles and the petioles, pedicels, and sepals are much more ciliate or pubescent (hirsute) and the coronal column here is very long and prominent not “very short” among the many differences.

This new *Eriostemma* species is named in honor of the collector. Dr. Franz Seidenschwarz is a Chemist and Botanist from Munich University (LMU) in Germany. Conducted his Dissertation about pioneer vegetation in the upper Amazon basin. He worked as a consultant and professor at the University of San Carlos in Cebu City, Philippines for 21 years (1987-2008), conducted many projects in the field of biodiversity preservation and watershed management (indigenous tree program, nature park designs, survival habitats for endangered species, plant and animal inventories), he was honored as an adopted son of Cebu City on 23 April 1997. Since April 2009 he has been assigned as the German honorary counsel in Cebu City,

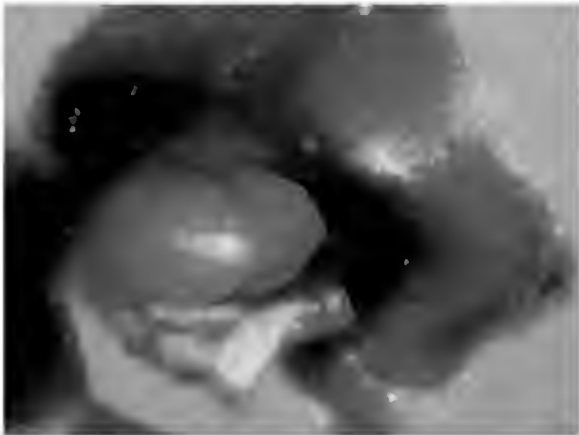
Floral parts follow:



**Pedicel:** section enlarged ca. 12x. They are curved, 3.5 cm long, terete, hirsute, tapering larger in diameter from the rachis to the calyx base, and 0.25 – 0.40 cm in diameter hirsute cells white and 0.02 cm long.



**Calyx:** outside surface enlarged ca. 10x, the surface is hirsute as the pedicel is, sepals are ovate, 0.40 cm long and 0.07 cm at the widest, basal overlap of 0.25 cm thus more than half way.



**Ovaries:** with two sepals removed, the sepals inside are slick, glabrous. Ovaries are columnar, glabrous, 0.27 cm long and base pair 0.27 cm wide. Apical ends with round low protrusions.



**Corolla:** section of ventral surface enlarged ca. 9x, the surface is slick-glabrous, the center is domed 0.80 cm in diameter, the lobe edges are rolled (under from the dorsal surface). At anthesis they vary from rotate to sub-revolute.

Sinus – sinus	1.05 cm
Sinus – center	0.80 cm
Sinus – apex	0.97 cm
Apex – center	1.50 cm
Widest	1.10 cm



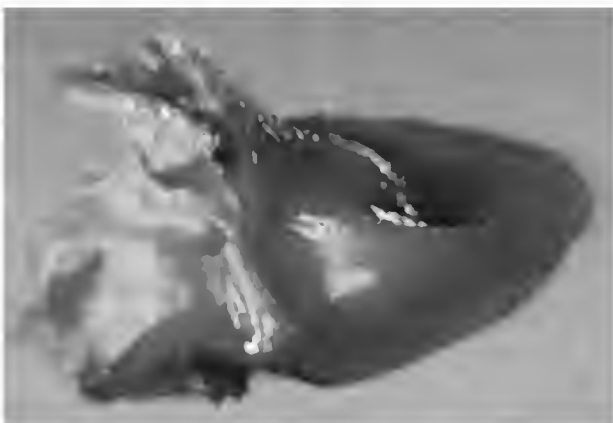
Corolla: dorsal surface from a photo taken of a live flower by Dr. Seidenschwarz. This corolla is cupped in from the lobes and rotate, under the corona the corolla is concave with the edge hirsute otherwise finely granulate, 0.80 cm in diameter.



**Corona:** a combination of two photos merged. The column is round, surface is granulate, it is 0.45 cm long the lobe bases are 0.30 cm in diameter, at the lobe bases there are clusters of hirsute cells especially at the lobe center bases.



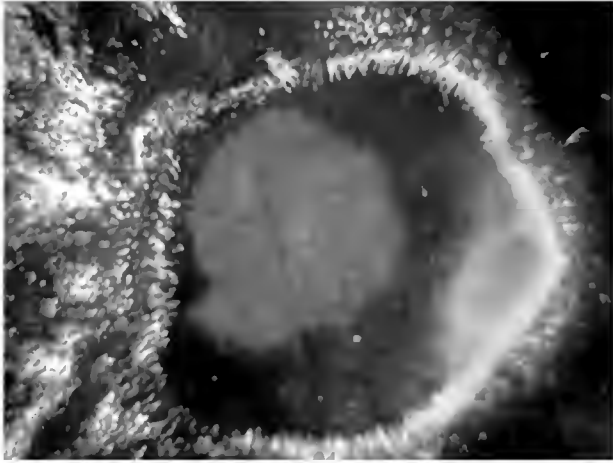
Corona: dorsal surface (partial due to the large size) enlarged 10x, the inner lobes are thin and spatulate with the dorsal surfaces of low parallel ridges (sub-sulcate) they nearly reach the center and are slightly elevates. The anthers are creped. Lobe dorsal is slightly concave with a low central rise, outer lobes are obtuse.



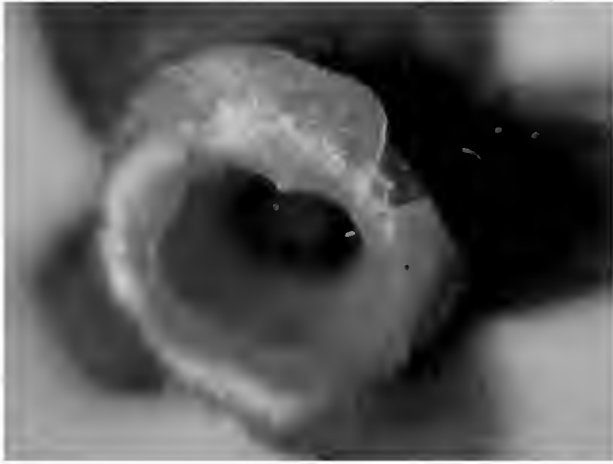
Corona: scale side view enlarged ca. 14x. The inner lobe is above the outer lobe, note the sulcate upper lobe surface and the central dome just out from the inner lobe. The lobe at the center is 0.15 cm thick and from the inner lobe to the base is 0.30 cm.

Apex – apex	0.42 cm
Apex – center	0.44 cm
Widest (dorsal)	0.28 cm
Ret. - ret./center	0.20 / 0.17 cm
Aw.-aw./center	0.33 /0.32 cm

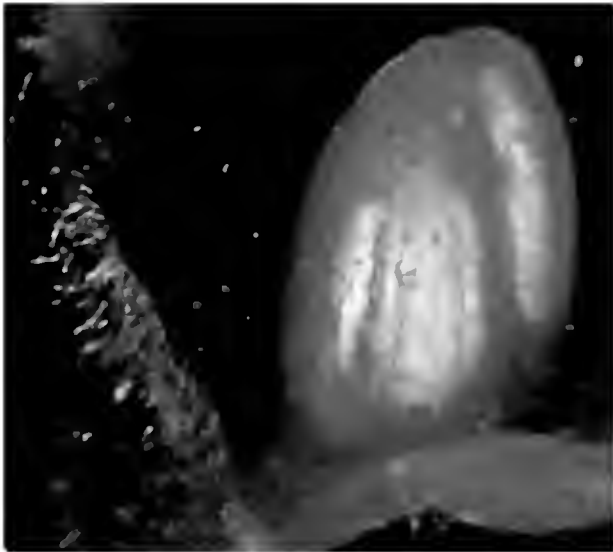




Another enlarged photo of the corolla center ventral surface to show the hirsute edge of the center which is otherwise granulate.



An photo of the end of the coronal column greatly enlarged, center is opening for the two ovaries, surface with a small portion of the corolla adhering on removal.



Corona: greatly enlarged to show the surface conformation and the apical modifications. To the left the here dark edge of the sepal with 0.02 cm long white hirsute hairs.





Pollinarium enlarged 80x.

**Pollinium**

length	0.80 mm
widest	0.40 mm

**Caudicle**

bulb diam	0.30 mm
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**Retinaculum**

length	0.50 mm
shoulder	0.40 mm
narrowest	0.18 mm
extensions	0.20 mm

**Notations:** The caudicles are below the translator as they exit the retinaculum, as usual in *Eriostemma* species the translators twist over nearer the pollinia and then back as they reach the pollinia. The retinacular head is flattened and

**Translator**

length	0.95 mm as near as I can determine.
widest	0.10 mm

cupped away from the center.

Reduced copy of the type sheet



Photos below by Dr. Franz Seidenschwarz in Cebu, Philippines from living plants.



Photo sent via e-Mail July 2007



**Note:** the petiole is attached to the leaf base and is not grooved; the leaf dorsal surface has some mottling. The nervation is pinnate, the midrib area on the dorsal is sunken slightly and the leaf edges roll under slightly. Shape is ovate, base is obtuse, apex is blunt. Umbels of about 10 flowers, negatively geotropic, not all opening at once.



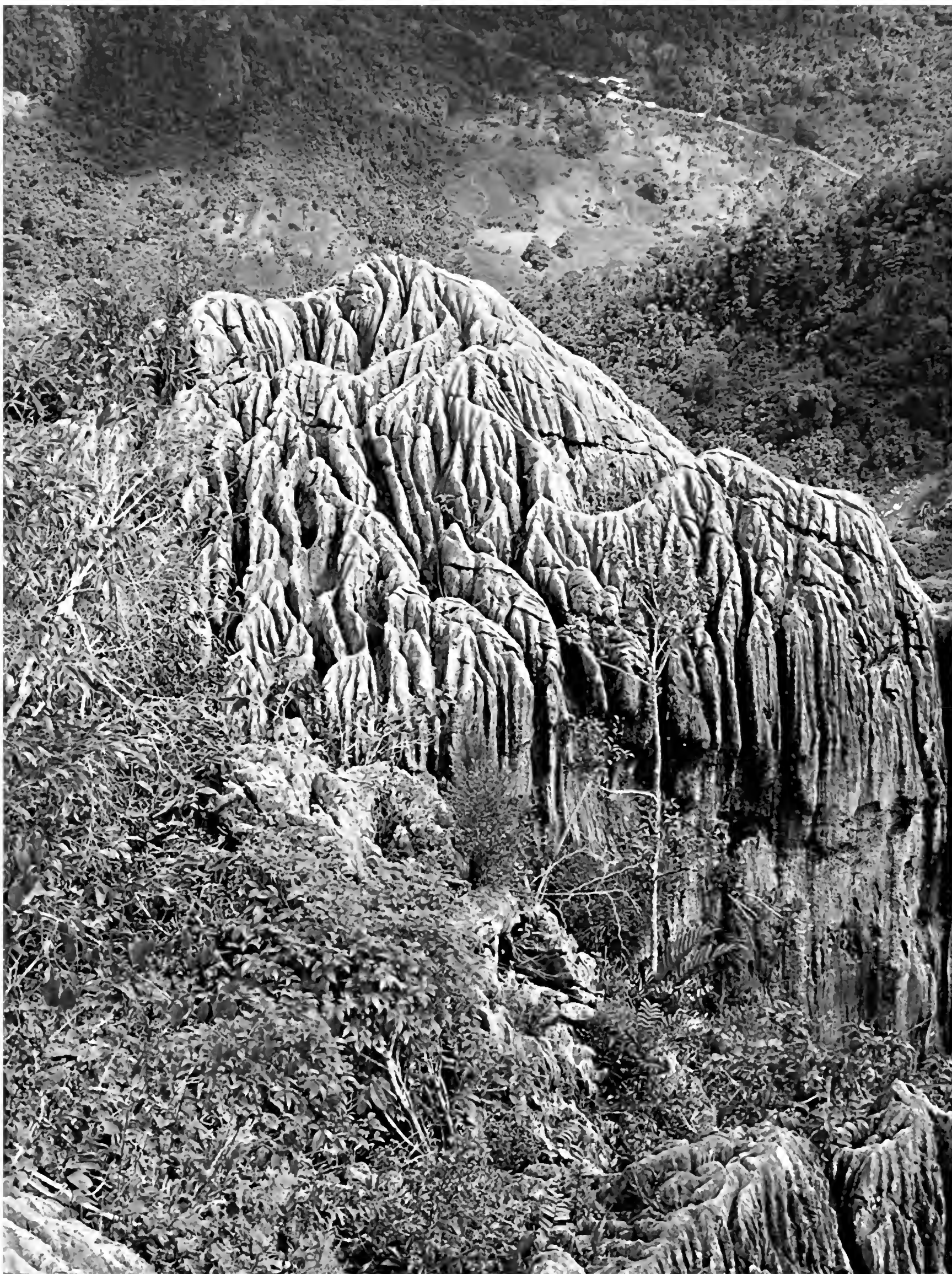
**Leaf:** 7-7.2 cm long, 3.4-3.8 cm wide and petioles 1.3-1.6 cm long. Internodes are 7.5-8.0 cm long.



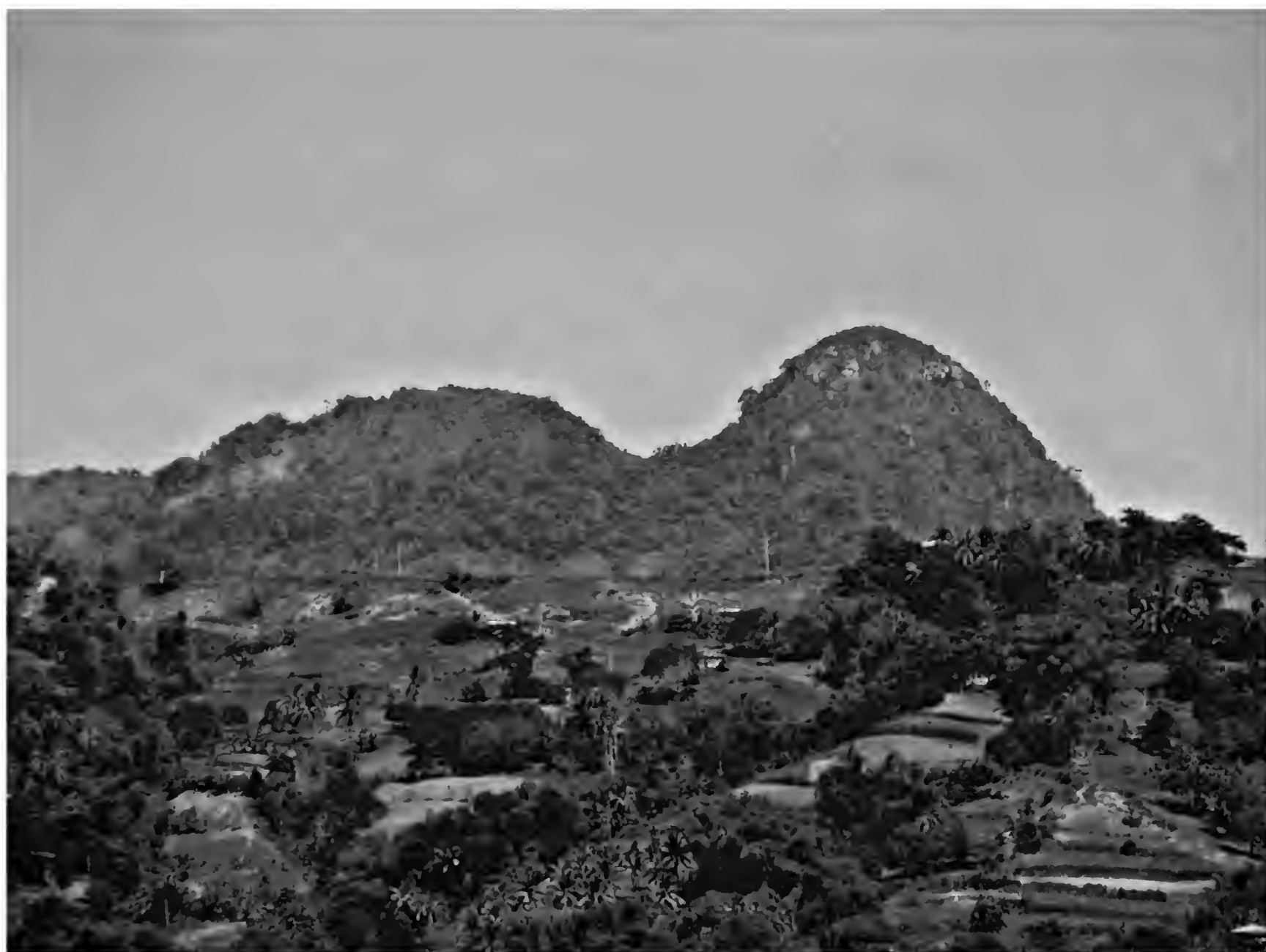
University of San Carlos,  
Cebu City, Philippines.



**Habitat of this *Eriostemma* species. On limestone habitat.**



**Mt. Ma-uyog on the right where the plant was collected.**





**# 4. *Hoya ranauensis* T. Green & D. Kloppenburg**  
ISSN 2329-7336

**NEW SPECIES OF HOYA (APOCYNACEAE – ASCLEPIADOIDEAE) FROM  
SABAH, MALAYSIA  
*HOYA RANAUENSIS*, sp. n.**

T. Green\* and D. Kloppenburg\*\*

\*Green: Plant Research, P O Box 597, Kaaawa, Hawaii 96730

\*\* 6427 North Fruit Ave., Fresno, California 93711

**ABSTRACT:** To add to the approximately 60 described species of *Hoya* from Sabah, this new species is from the Ranau District of Eastern Sabah, a plant that could be confused with *Hoya vitellinioides*, Bakh. f. that is found in the same area. In growth, *Hoya ranauensis* is similar to *Hoya vitellinioides* but with differing venation and leaf edge, larger umbel and differing floral parts.

**KEY WORDS:** *Hoya*, *Hoya ranauensis*, *Hoya vitellinioides*

***Hoya ranauensis* T. Green & Kloppenburg sp. nova.**

**Diagnosis:**

A tropical, epiphytic, branching vine, with smooth round stems, occasionally rooting along stems; widely spaced elliptic to lanceolate leaves with an obtuse to cuneate base, smooth, tip acute, with thick texture; nerves conspicuously pinnate with the 4-7 secondary nerves, about 45 degrees to the midvein, anastomosing outwardly; blade 10-20 cm long by 4–7.5 cm wide, glandless; petiole 0.3-0.5 cm x 1-2 cm, fleshy; peduncle round, 0.3 cm in diameter x 1.0 cm - 2.5 cm long, permanent, bearing a hemispheric, many flowered (30-40) umbel; pedicels thread-like, 2 cm long and 0.10 cm in diameter; calyx 5 lobed, small 0.3 cm; corolla 5 lobed 1.5 cm in diameter: corona 5 lobed, ovate. Ovaries, 2. Seed pod not seen.

Corolla ivory with red tips, corona white. Fragrance pleasant and spicy. Milky sap in vegetation.

Ex hort garden of Ted Green, Kaaawa, Hawaii, original collection TG 04024, from the Poring Hot Springs area, at 1800 ft. elevation. HOLOTYPE 757786 (BISH), here designated.

Ted Green  
April 2014



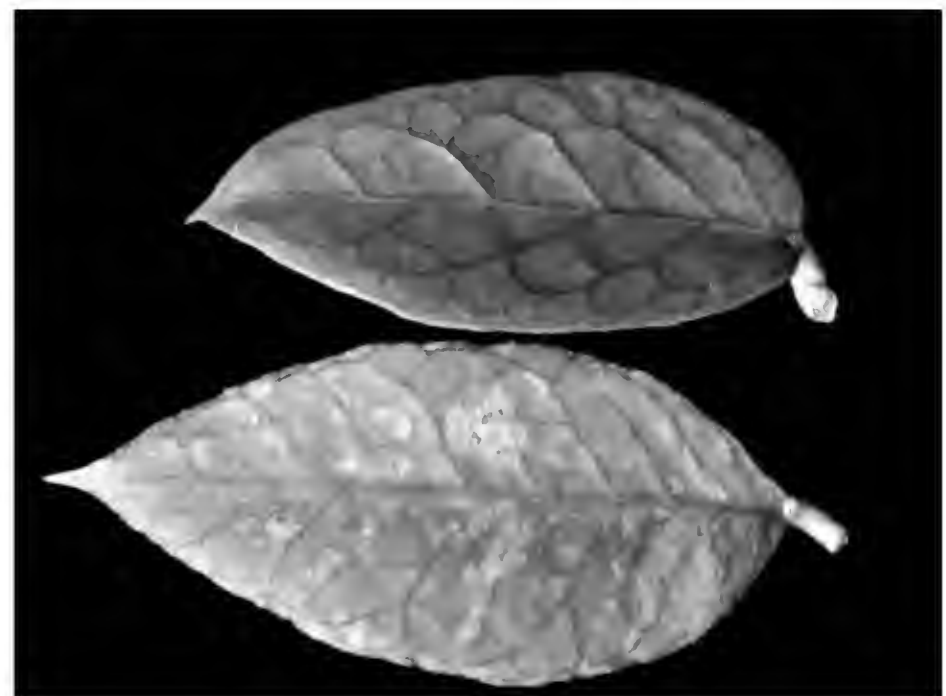
Typical Umbel



Typical leaf venation



General growth.



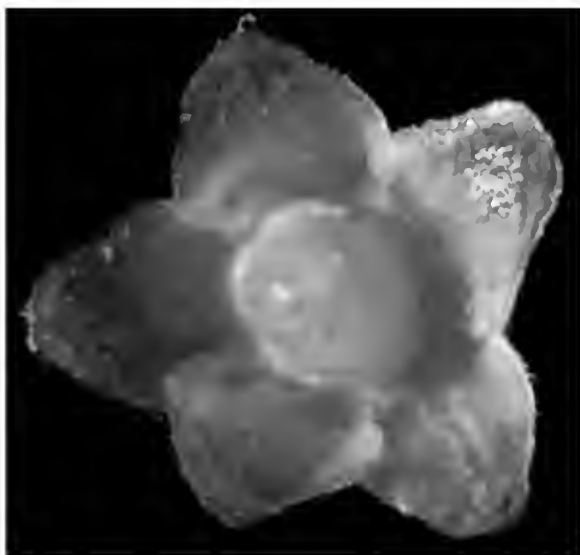
Leaf Comparison: *H. ranauensis* at top, *vitellinioides* at bottom (note erose/crenulate general growth of leaf edge).

**FLORAL PARTS:**



**Pedicel:** section enlarged 38x, they are strict, terete, glabrous, 2 cm long and 0.10 cm in diameter

**Calyx:** below, side view enlarged ca. 18x. the base is bulbous surface is granulate, sepals sub-ovate with basal overlap 0.05 cm, apices are rounded, central thickened and with thin edges.



**Calyx:** dorsal view, enlarged as above, ligules are present at the sinuses. 0.15 cm long and 0.11 cm at the widest.

**Ovaries:** short dome shaped, 0.14 cm long and base pair 0.10 cm wide, apex only slightly modified.



**Corolla:** lobe section dorsal surface, enlarged 10x, this surface is glabrous and with scattered granules. At anthesis it is reflexed.

Sinus – sinus	0.31 cm
Sinus – center	0.20 cm
Sinus – apex	0.62 cm
Apex – center	0.75 cm
Widest	0.45 cm



Corolla: ventral surface, enlarged as above this surface is nearly slick glabrous.



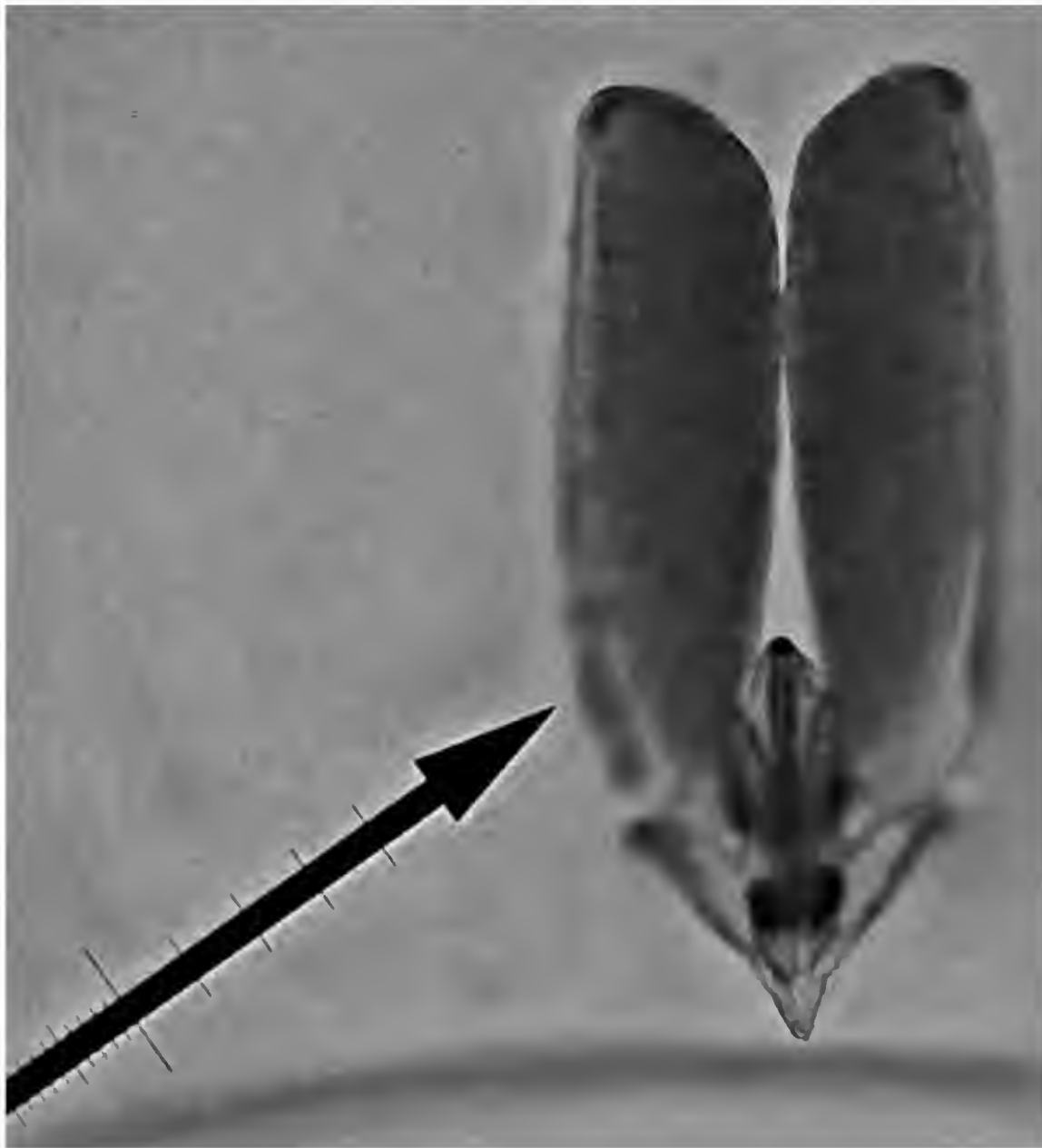
**Corona:** ventral surface enlarged ca. 11x. The lobes are channeled with rounded edges, surfaces are diagonal sulcate, Anther wing apices duplicate and extend from the sinuses 0.03 cm. The central column is 0.10 cm long 0.10 cm in diameter, thin walled and surrounding area clean.



Corona: dorsal surface enlarged as above, the inner lobes are dentate and do not reach the center, dorsal is horizontal and slightly concave with a broad central rise, edges are sharp, apex is acute slightly emarginate.

Apes – apex	0.30 cm
Apex - center	0.32 cm
Widest	0.17 cm
Ret. – ret. / center	0.10 / 0.08 cm
Aw. – Aw. / center	0.20 / 0.15 cm.

Corona: lobe side view enlarged ca. 23x, the scale is 0.25 cm thick, nearly horizontal with inner lobe raised slightly, outer apex slightly emarginate .



Pollinarium enlarged 110x.

**Pollinium**

length 0.50 mm  
widest 0.19 mm

**Retinaculum**

length 0.15 mm  
shoulder 0.12 mm  
waist 0.06 mm  
hip 0.08 mm  
ext. 0.04 mm

**Translator**

length 0.12 mm  
widest 0.02 mm

**Translator/caudicle type:**  
ls/o

**Caudicle**

bulb diam. 0.06 mm

**Etymology:** After the place where it was found: the Ranau District of Sabah, Malaysia.

On the eastern slope of Mt. Kinabalu.

**Conservation:** Along streams in many areas that do not seem to be in the way of human development, except possibly roads and bridges.

## #5. *Eriostemma davaoensis* Kloppenburg

ISSN 2329-7336

***Eriostemma davaoensis*** Kloppenburg sp. nova, holotypus #49264 (UC), isotypus #49264 (BS) hic designatus, similes *Hoya madulidii* Kloppenburg 1990 sed pedunculi 0.5 cm longi contrastre 2 cm et calycis segmentis imbricatus  $\frac{1}{2}$ , 0.37 cm x 0.45 cm contrastre imbricatus  $\frac{2}{3}$ , 0.40 cm longis et latis et collum 0.30 cm longis contrastre 0.70 cm, differt.

This new species is similar to *Hoya madulidii* Kloppenburg but with many differences, the peduncles are much shorter 0.5 cm long versus 2.0 cm and the sepals are overlapped one half versus  $\frac{2}{3}$  and they are 0.37 cm x 0.45 cm vs. 0.40 x 0.40 cm, the column here is 0.30 cm long vs. 0.70 cm (less than half as long). The pollinia are also shorter 0.88 mm vs. 1.0 mm, among other differences.

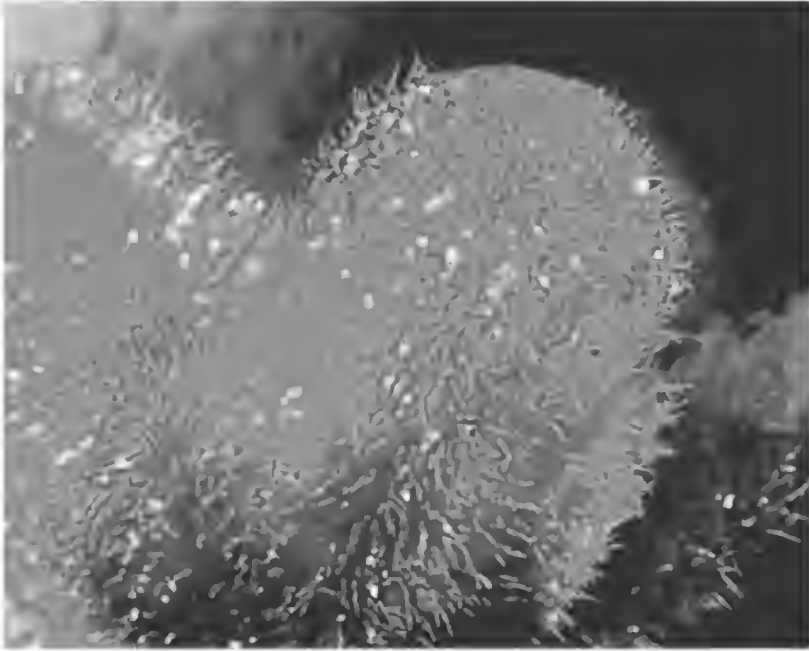
Photos and data from **Ramos & Edano #49264 (UC)**. From a forested slope, low altitude, 10 April 1927. Mati Davao, Mindanao, Philippines. Flower blood red, reflexed.

**Peduncle:** very short 0.5 cm long.



**Pedicel:** enlarged about 8x. 2.7 cm long 0.3 cm in diameter. Surface with still hirsute hair calls, most pointing outward.





**Calyx:** outside enlarged about 8x. Outer surface is hirsute. Sepals 0.37 cm long 0.45 at the widest oval in shape with a base overlap of about 50%.



Composite of two pictures of the column and corona enlarged about 8x. Column is gelatinous, short, 0.45 cm tall and 0.45 cm in diameter. Incurved base is 0.35 cm deep.

**Corona:** is 0.30 cm tall 0.55 cm wide, waxy and glabrous, very rigid. Base attachment area 0.20 cm

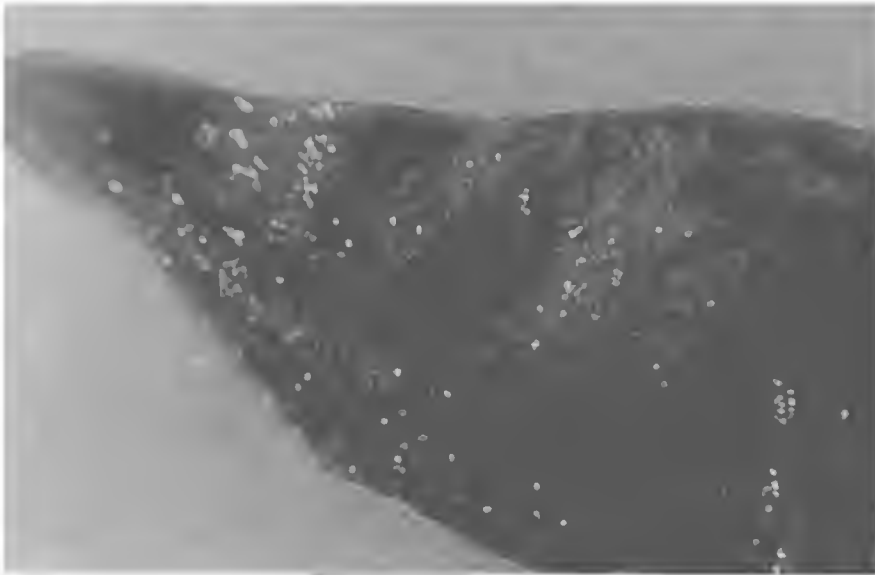


End view of the corona enlarged about 8x. Outer lobes are raised, apex obtuse, under surface concave. Dark material below is the upper surface of the corolla. Lobe ends are 0.30 cm wide and tall.

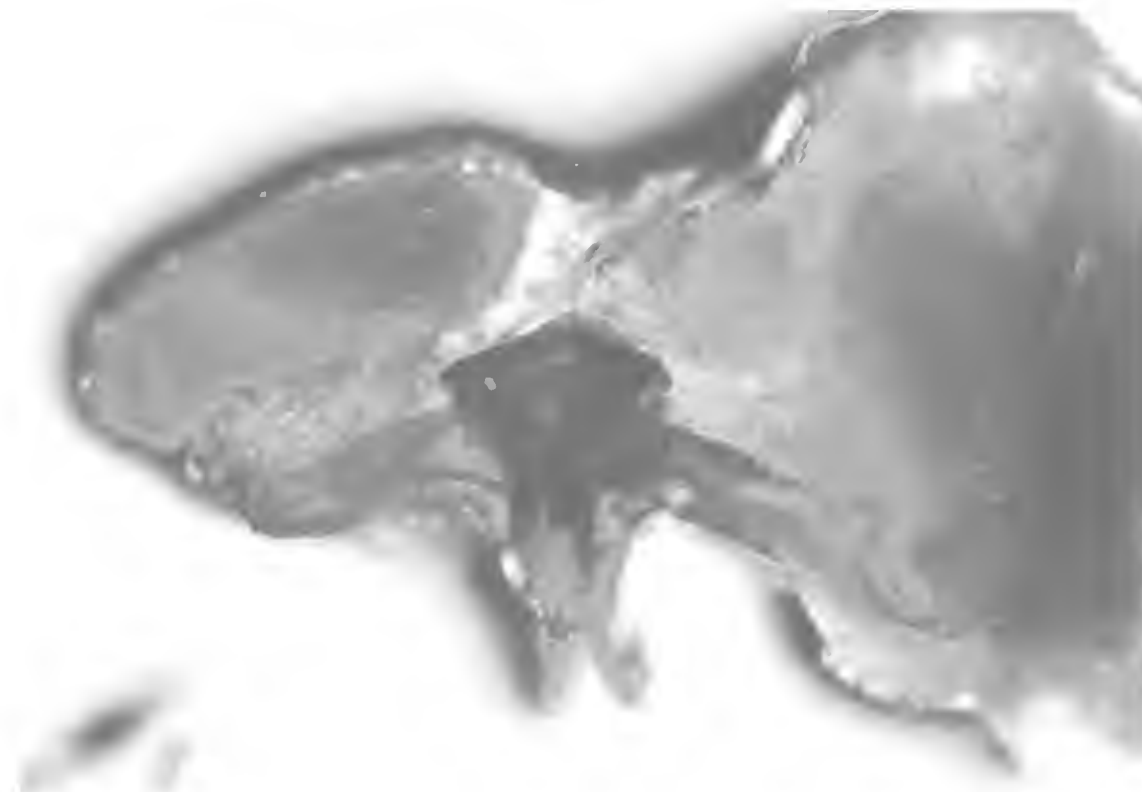


View of the underside of the corolla lobe enlarged about 8x. The lower surface (ventral) is hirsute above granulate and finely punctate. Glabrous except for the sunken collar which is hirsute inside and outside.

Sinus – sinus	0.95 cm
Sinus – apex	1.12 cm
Apex – base	1.40 cm



Inside (top) of the corolla at the lobe enlarged about 8x. This surface is granulate punctate glabrous except for the collar area. Collar is raised about 0.35 cm. Flower 2.8 cm in diameter.



Pollinarium enlarged about 85x. Retinaculum head comes to a point with rounded wide shoulders, rather strong extensions, Translator arise from waist area and have one major twist. Pollinia are relatively small narrow ovals.

#### **Pollinium**

length 0.88 mm  
widest 0.45 mm

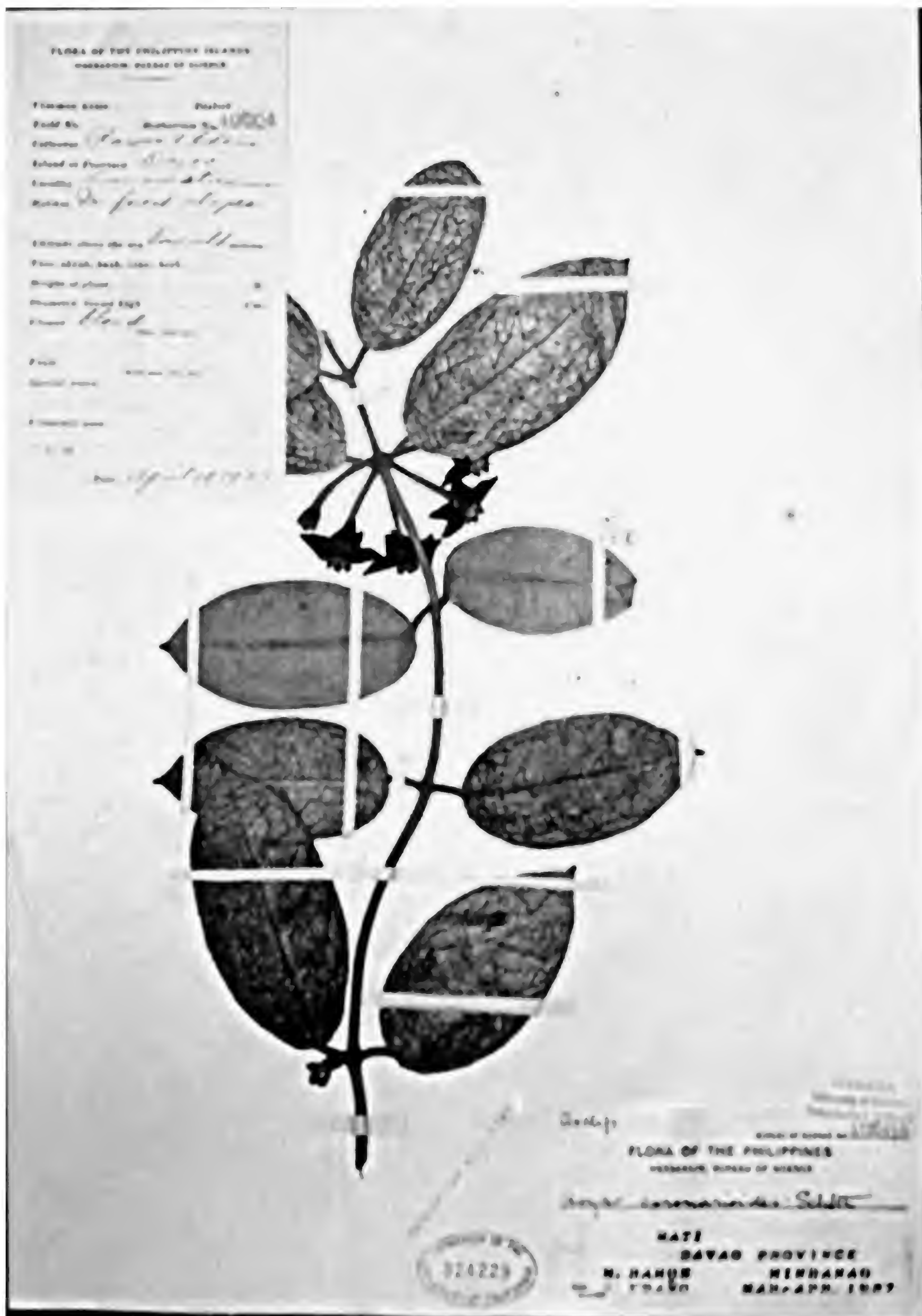
#### **Retinaculum**

length 0.50 mm  
head 0.40 mm

#### **Translator**

length 1.00 mm

Type sheet reduced: *Eriostemma* Kloppenburg, # 49264 (UC)



## #6. *Eriostemma suluensis* Kloppenburg

ISSN 2329-7336

***Eriostemma suluensis*** Kloppenburg sp. nova holotypus #44098 (UC) hic designatus. Isotypus (BO) similes *Hoya madulidii* Kloppenburg 1990 sed folio glabro non velutina et flos colour differt, calycis segmentis 0.50 cm x 0.60 cm contrastre 0.40 cm longis et latis et collum 0.15 cm longis contrastre 0.70 cm, differt.

This new species is similar to *Hoya madulidii* Kloppenburg but with many differences, the leaves are glabrous not velvety and the flower color is yellow not red. The sepals are 0.50 cm x 0.60 cm vs. 0.40 x 0.40 cm, the column here extremely short 0.15 cm long vs. 0.70 cm (less than 1/4th as long). The pollinia are also shorter 0.68 mm vs. 1.0 mm, among other differences.

Peduncle is ciliate 1.9 cm long.

Pedicels hirsute 1.9 cm long to the calyx base. (drying dark colored).

Calyx with nearly round sepals 2/3 overlap at base edges ciliate, with a few scattered surface pubescent hair cells, 0.50 cm long and 0.60 cm at the widest, base 0.35 cm edges membranous (0.15 cm).



Corolla lobe enlarged about 8x. The corolla is reflexed, inside and outside surfaces glabrous with the surface inside punctate. Cilia at the sinuses on ventral surface. Flower diameter flattened 2.8 cm in diameter

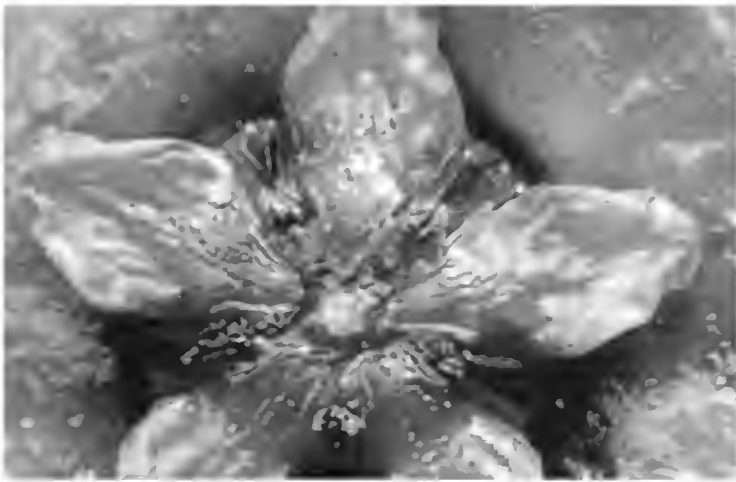
Sinus – sinus	0.60 cm
Sinus – apex	0.60 cm
Sinus – center	0.80 cm
Apex – center	1.40 cm



Collar area enlarged about 8x . Collar is thick with short stiff white hair cells covering the inside cupped area. The cup is 0.35 cm deep



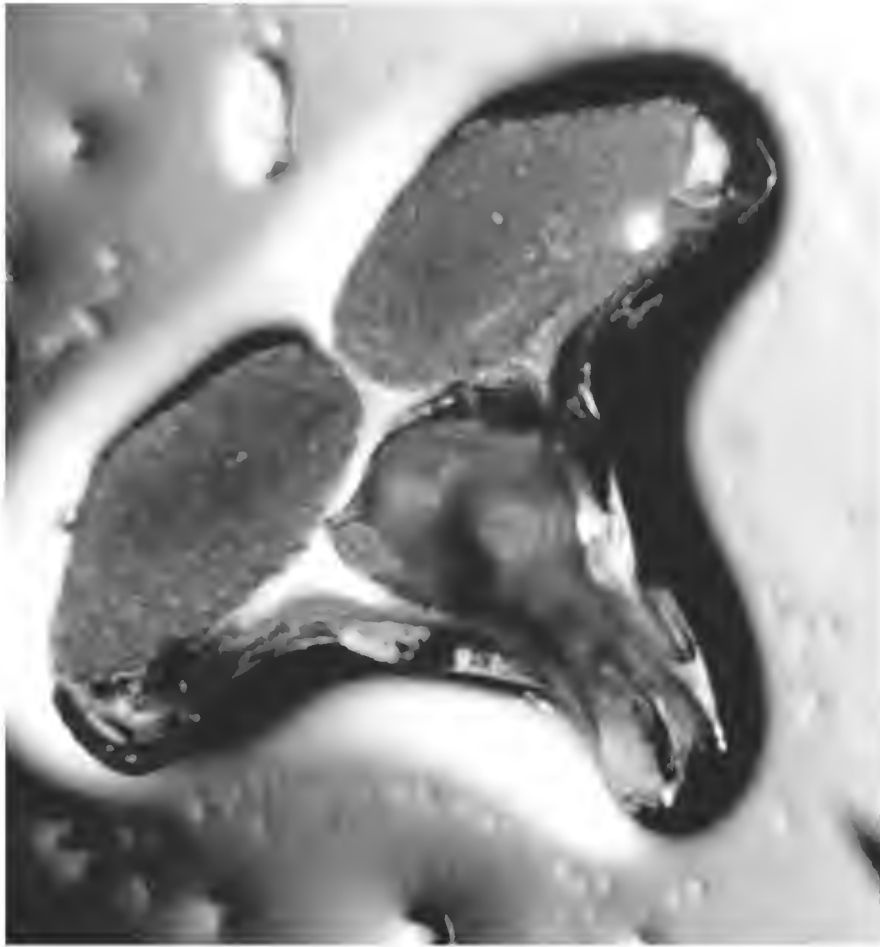
Ventral view of the corona enlarged about 8x. The column area is large. Outer lobes concave below outer apex obtuse. The outer does not reach the corolla sinuses.



Top view of the corona enlarged about 8X, 1.00 cm in diameter. The inner lobes are spatulate, rough lined surface and do not reach the center they are 0.40 cm long, a little raised, widest 0.24 cm, and 0.25 cm deep, apex – center 0.50 cm, Outer apex broadly rounded, dorsal cupped with a central rounded keel. Anther wings are very thick and relatively short with rounded apices.



Side view of a coronal scale enlarged about 16x. The column on this species is very short ca. 0.15 cm long, gelatinous surface.



Pollinarium enlarged about 48x.

Pollinarium	
length	0.68 mm
widest	0.33 mm

Retinaculum	
length	0.58 mm
head	0.38 mm

Translator length	1.22 mm
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Foliage is ovate glabrous, even the young leaves, base is obtuse apex is acuminate.

Collected by Ramos & Edano in Tawi Tawi, Sulu Province, Philippines. Forest near mangrove, low altitude, Lumoj Magsagkao, Yellow flower.



Poor reduced copy of Isotype sheet at Bogor, Indonesia. *Eriostemma as ciliata* 44098 (BO) Collected by Ramos and Edano at Tawi Tawi, Sulu Province July Aug. 1924.

